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(71)Applicant: MATSUSHITA ELECTRIC IND CO

LTD

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(72)Inventor: AOKI MASAKI

SUZUKI SHIGEO

TANAKA HIROYOSHI

(54) PLASMA DISPLAY PANEL AND ITS MANUFACTURE

(57)Abstract:

PROBLEM TO BE SOLVED: To improve the secondary electron emitting coefficient of a protecting layer to reduce the discharge voltage and improve the emission luminance by covering a dielectric glass layer with a protecting layer consisting of diamond-like carbon (amorphous diamond).

SOLUTION: A front panel 10 is manufactured by forming a discharge electrode (display electrode) 12 on a front glass base 11, covering the surface with a lead-based dielectric glass layer 13, and forming a diamond-like carbon protecting layer 14 on the surface of the dielectric glass layer 13. The protecting layer 14 has an amorphous membrane structure consisting of diamond-like carbon. The protecting layer 14 consisting of diamond-like carbon is formed by use of plasma CVD or plasma torch CVD. In the plasma CVD by use of a CVD device, for example, the glass base is heated at a prescribed temperature, and a plasma is then generated in the device body by reducing the pressure and applying a high frequency electric field, and the protecting layer 14

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a high frequency electric field, and the protecting layer 14 is formed while carrying a gas.

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